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United States
General Accounting Office
Washington, D.C. 20548

National Security and
International Affairs Division

B-248483

May 1, 1992

The Honorable Les Aspin
Chairman, Committee on
Armed Services
House of Representatives



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The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives

Over the last few years, we have reported on issues pertaining to the Air Force's Advanced Medium Range Air-to-Air Missile (AMRAAM).¹ In June 1991, we reported on the status of production. We are reviewing the contractors' current status of missile production as part of our work on the AMRAAM Preplanned Product Improvement Program and plan to issue a report later this year. This letter is in response to your staffs' requests that we provide interim information on AMRAAM's production status to support deliberations on the fiscal year 1993 budget request.

BACKGROUND

The Air Force and the Navy jointly developed the AMRAAM and both services are procuring the missile. The Air Force manages the program.

The Congress has appropriated over \$4.4 billion through fiscal year 1992 to procure over 4,000 AMRAAMs in the first 6 production years. Hughes Aircraft Company and Raytheon Company are under contract to produce these missiles, as shown in table 1.

¹Missile Procurement: AMRAAM's Reliability Is Improving, but Production Challenges Remain (GAO/NSIAD-91-209, June 20, 1991) and Missile Procurement: Further Production of AMRAAM Should Not Be Approved Until Questions Are Resolved (GAO/NSIAD-90-146, May 4, 1990).

GAO/NSIAD-92-212R Missile Procurement

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Table 1: AMRAAMs Under Contract

<u>Production lot</u>	<u>Fiscal year</u>	<u>Quantity under contract</u>	
		<u>Hughes</u>	<u>Raytheon</u>
1	1987	105	75
2	1988	223	200
3	1989	534	372
4	1990	450	450
5	1991	540	270
6	1992	<u>401</u>	<u>490</u>
		2,253	1,857

The Air Force's and the Navy's budget requests for fiscal year 1993 include \$868.9 million for 1,155 missiles. Specifically, the Air Force has requested \$731.4 million for 1,015 missiles, and the Navy has requested \$137.5 million for 140 missiles.

RESULTS IN BRIEF

Since our June 1991 report, both contractors have increased their monthly production quantities but have fallen short of the quantities projected at that time. As a result, the production backlog has increased. Moreover, the Air Force has renegotiated the contractors' delivery schedules to provide for a more moderate increase in monthly production quantities. Furthermore, on the basis of the projected delivery schedule for missiles to be procured with fiscal year 1993 funds, we estimate that funds for 581 missiles will not be needed in fiscal year 1993.

OPTIMISTIC PRODUCTION ESTIMATES

We stated in our June 1991 report that Hughes had delivered 30 missiles a month during the first 4 months of 1991 and that the modified contracts required Hughes to deliver 45 missiles in May 1991 and each month thereafter. Hughes averaged about 29 missiles a month from May 1991 through March 1992 and increased its missile deliveries to 35 missiles during February and March 1992.

We reported in June 1991 that Raytheon had delivered 9 missiles a month during the first 4 months of 1991 and that the modified contracts required Raytheon to deliver 32 missiles in May 1991, 38 missiles in August 1991, and 46 missiles a month thereafter. Raytheon delivered 12 missiles in May 1991 and 18 missiles in August 1991. It averaged about 27 missiles a month from September 1991 through March

1992. Raytheon had increased deliveries to 31 and 32 missiles during February and March 1992, respectively.

At the time of our prior review, Hughes and Raytheon were scheduled to complete lot 3 deliveries in March and April 1992, respectively. However, the Air Force renegotiated the contractors' delivery schedules in October 1991 because of production delays. Hughes and Raytheon are scheduled to complete lot 3 deliveries in September and November 1992, respectively.

INCREASED PRODUCTION BACKLOG

We stated in our June 1991 report that through April 1991 Hughes had delivered only 314 of the 701 missiles planned to be delivered when the contracts for the first 3 production lots were awarded. The production backlog was 387 missiles. Through March 1992, Hughes had delivered 629 of 1,160 missiles planned when the contracts for the first 4 production lots were awarded. The production backlog grew to 531 missiles.

In our June 1991 report, we said that through April 1991 Raytheon had delivered only 138 of the 551 missiles planned to be delivered when the contracts for the first 3 production lots were awarded. The production backlog was 413 missiles. Through March 1992, Raytheon had delivered 385 of 945 missiles planned when the contracts for the first 4 production lots were awarded. The production backlog grew to 560 missiles.

REQUEST FOR FUNDS BEYOND THE FUNDED DELIVERY PERIOD

Defense budget guidance specifies that the services' annual procurement budget requests should fund no more than the quantities to be delivered in the 12-month period following the lead time needed to negotiate and award a contract and procure raw materials and components. This 12-month period is referred to as the funded delivery period.

Historically, the lead time estimated in AMRAAM budget documents for lots 2 and beyond was 21 months. Considering the lead time, AMRAAM's funded delivery period for fiscal year 1993 is June 1994 through May 1995. Budget documents supporting the fiscal year 1993 Air Force and Navy budget requests show that 581 (510 Air Force and 71 Navy) of the 1,155 missiles are expected to be delivered between June 1995 and November 1995--the 6 months following the funded

delivery period. Therefore, in accordance with Defense budget guidance, funding for the 581 missiles will not be needed in fiscal year 1993.

Our June 1991 report concluded that funding for 314 AMRAAMs requested for fiscal year 1992 was not needed because the missiles were scheduled to be delivered beyond that fiscal year's funded delivery period. The Department of Defense estimated funding for the 314 missiles at \$137 million or approximately \$436,000 per missile. Although we recognize that the cost per missile may vary somewhat from year to year, the 581 missile reduction for fiscal year 1993 would amount to approximately \$250 million.

We discussed the information presented in this letter with Air Force headquarters officials responsible for the AMRAAM program. The officials said that the cut in missiles was neither prudent nor warranted. According to the officials, many if not all of AMRAAM's previous technology and production issues have been eliminated. Moreover, the contractors have met or exceeded the delivery schedules that were renegotiated in October 1991. Also, according to the officials, the proposed reduction would significantly impact the source selection process because 1,014 missiles are necessary for a competitive split between the contractors. Furthermore, the officials stated that this letter does not recognize the administrative lead time to negotiate and award the contracts which is in addition to the 21-month manufacturing lead time needed by the contractors to order and assemble parts. According to the officials, the administrative lead time for lot 7 missiles, which is estimated at 4 to 5 months, is needed because congressional enactment of the authorization and appropriation bills has traditionally been late and contracting cannot be completed until congressional funding action is known. Therefore, according to the officials, all of the missiles requested for fiscal year 1993 are within that year's funded delivery period.

At the time of our June 1991 report, we were told that the contractors' production schedules were achievable because technology and production issues had been resolved. However, the contractors continued to fall far short of production schedules during the subsequent months. Although the contractors have met the more moderate schedules which were renegotiated in October 1991, they have not shown that they can consistently deliver missiles at increasing rates. The statement that 1,014 missiles is necessary for a competitive split between contractors is not supported by

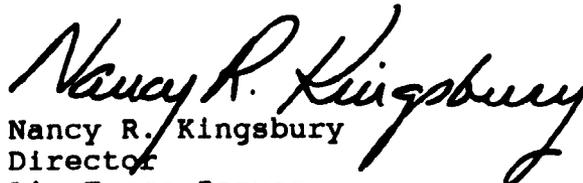
the fact that lots 5 and 6 were competitively awarded for 810 and 891 missiles, respectively.

The budget documents supporting lot 1 production show a 6-month administrative lead time in addition to the 21-month manufacturing lead time, but the documents also show that the administrative time is only required for that initial production lot. Budget documents for lots 4 and 5 do not show administrative lead time, but the documents for lots 6 and 7 reintroduce the need for the additional lead time. This appears to be contrary to budget guidance which indicates that the lead time should decrease for follow-on production lots.

The actual lead time has increased over the years as production delays have occurred and the missile backlog grew. For example, the lead time to Hughes' first missile delivery increased from 27 months for lot 1 to 31 months for lot 3 and the lead time to Raytheon's first missile delivery increased from 27 months to 35 months for lot 3. Hughes and Raytheon are projected to deliver their first lot 4 missiles after lead times of 35 and 33 months, respectively.

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We conducted our review from November 1991 through April 1992 in accordance with generally accepted government auditing standards. If you have questions, please call me or Mr. Robert L. Pelletier, Assistant Director, of my staff at (202) 275-4268.


Nancy R. Kingsbury
Director
Air Force Issues

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